## WE CLAIM

- 1. A method for enhancing delivery of oxygen to tissue, comprising applying to said tissue a composition which contains a vasodilating effective amount of a derivative of a vasodilator compound, wherein said derivative has a log P value below about 6.0.
- 2. The method of claim 1, wherein said derivative has a log P value of from about 4.5 to about 5.5.
- 3. The method of claim 1, wherein said derivative is an ester.
- 4. The method of claim 1, wherein said derivative is an alcohol ester.
- 5. The method of claim 3, wherein said ester contains from about 1 to about 12 carbon atoms in an alkyl chain.
- 6. The method of claim's, wherein said alkyl chain contains from about 6 to about 12 carbon atoms.
- 7. The method of claim 6, wherein said alkyl chain contains from about 8 to about 10 carbon atoms.
- 8. The method of claim 7, wherein said derivative is a niacin octyl ester.
- 9. The method of claim 4, wherein said ester contains from about 6 to about 12 carbon atoms in an alkyl chain.
- 10. The method of claim 9, wherein said ester contains from about 8 to about 10 carbon atoms in an alkyl chain.
- 11. The method of claim 4, wherein said derivative is a niacin alcohol ester.
- 12. The method of claim 1, wherein said derivative is present in an amount ranging from about 0.05% to about 5.0% by weight of said composition.
- 13. The method of claim 12, wherein said derivative is present in an amount ranging from about 0.1% to about 1.0% by weight of said composition.
- 14. The method of claim 1, wherein said composition is in the form of a cream, a lotion, a salve, a balm, a roll-on stick, a shampoo, a wash, or a suppository.
- 15. The method of claim 1, wherein said composition comprises an ester of a compound without vasodilatory effect.
- 16. The method of claim 1, wherein said ester is butyl benzoate.

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